# 800MHz FSB Pentium® 4 System
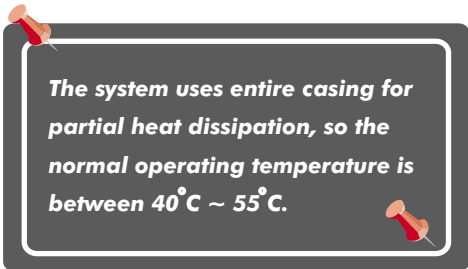
# User's Manual

# WARNING

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

* Reorient or relocate the receiving antenna.
* Increase the separation between the equipment and receiver.
* Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
* Consult the dealer or an experienced radio TV technician for help.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equivalent.

> *The system uses entire casing for partial heat dissipation, so the normal operating temperature is between 40°C ~ 55°C.*

# General Information

## Item Checklist

**A. System Part List:**

1. Mainboard
2. Installation Guide
3. CD
4. Power Adapter
5. Power Cable
6. Plastic Stand (4 pcs)
7. CPU Cooler
8. CPU FAN

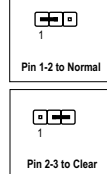**B. Barebone System Part List:**

1. Mainboard
2. Installation Guide
3. CD
4. Power Adapter
5. Power Cable
6. UDMA ATA Cable
7. CD-ROM Cable
8. CD-ROM Adapter
9. CPU FAN
10. CPU Cooler
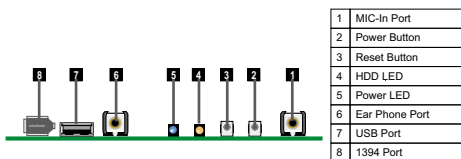11. Installation Accessory Pack

## Mainboard Layout
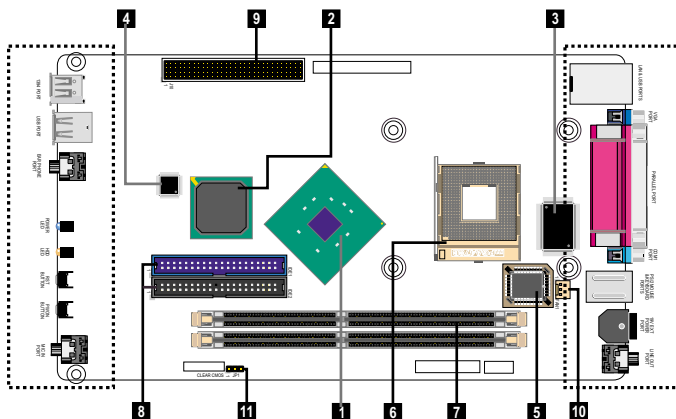


| | |
|---|---|
| 1 | Intel 865G Chipset |
| 2 | Intel 82801EB Chipset |
| 3 | I/O Chipset |
| 4 | Audio CODEC Chipset |
| 5 | Flash EEPROM |
| 6 | CPU Socket 478 |
| 7 | DDR DIMM Sockets |
| 8 | IDE Connectors |
| 9 | PC104 Plus Connector (option) |
| 10 | CPU FAN (FAN 1) |
| 11 | Clear CMOS |

**CLEAR CMOS (JP1)**



Pin 1-2 to Normal



Pin 2-3 to Clear

## Front Panel Connector



| | |
|---|---|
| 1 | MIC-In Port |
| 2 | Power Button |
| 3 | Reset Button |
| 4 | HDD LED |
| 5 | Power LED |
| 6 | Ear Phone Port |
| 7 | USB Port |
| 8 | 1394 Port |

## Rear Panel Connector



| | |
|---|---|
| 1 | RJ45 LAN Port |
| 2 | Parallel Port |
| 3 | PS/2 Mouse Port |
| 4 | USB Ports |
| 5 | VGA Port |
| 6 | RS232 COM Port |
| 7 | PS/2 Keyboard Port |
| 8 | 19V Power In |
| 9 | LINE-Out Port |

2
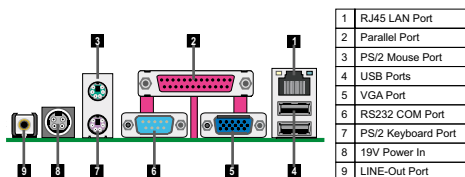
# Installation Procedure

## 1 Processor / Memory Installation

### Install CPU / Cooler

CPU FAN Screws

CPU Cooler Screws

Rear Panel

4

CPU cooler

Rear Panel

6

6

CPU FAN

Heatsink
Compound

3

CPU

7

5

90˚

Copper pillaret

5

CPU cooler

2

Socket 478

1
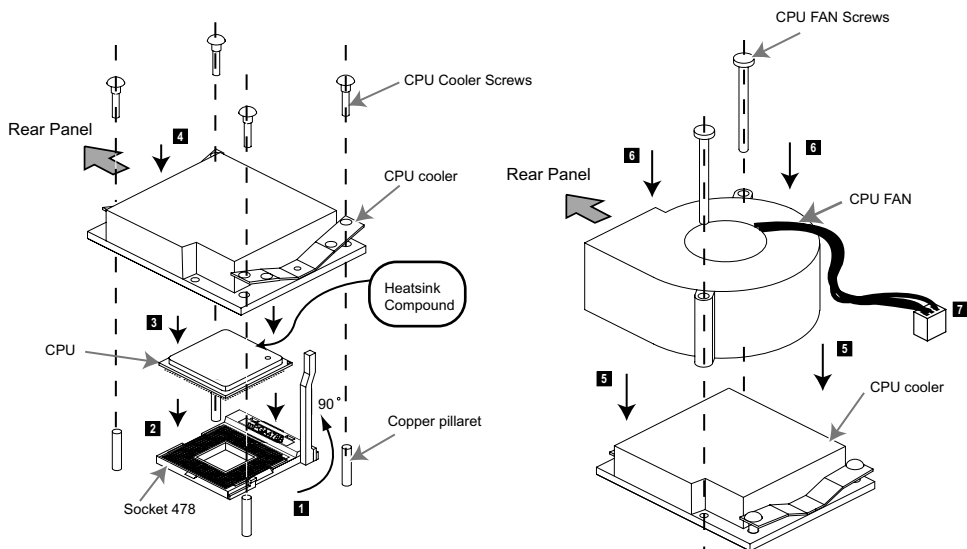
Note: Glue the heatsink compound between the CPU and heatsink.

1 CPU socket level up to 90-degree.

2 Install CPU on CPU socket.
(Match socket pin 1 and CPU cut edge)

3 Install CPU cooler on CPU.

4 Tighten CPU cooler with screws into
copper pillaret.

5 Install CPU FAN on CPU Cooler.

6 Tighten CPU FAN with screws to CPU Cooler.

7 Connect CPU FAN connector to mainboard
CPU FAN (FAN1) connector.

### Install Memory

45˚

2
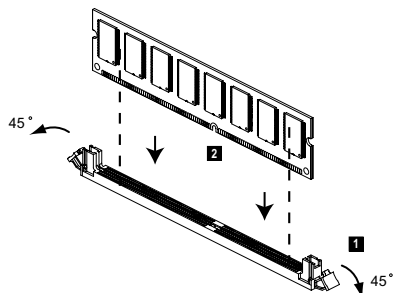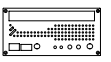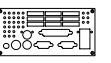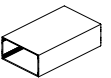
1 DIMM socket level down to 45-degree.

2 Install memory module into the DIMM socket.

1

45˚

# Installation Procedure

## 2 Drive Installation
### 2.1 Corresponding models: Standard, SPDIF, 1 LAN, 1Gb LAN, Mini PCI, 3 RS-232, TV-Out

### Part List

**(A)** CD-ROM Bracket

**(B)** CD-ROM Adapter

**(C)** UDMA ATA Cable (150mm)

**(D)** CD-ROM Cable (210mm)

**(E)** Copper pillaret Screws (* 4)

**(F)** Printer/COM/VGA Screws (* 6)

**(G)** Front Panel
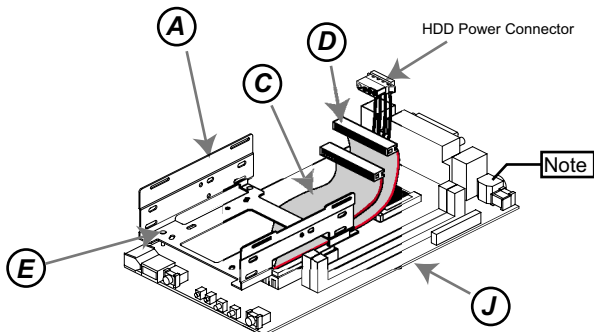
**(H)** Rear Panel

**(I)** Case

**(J)** Mainboard

Installation Accessory Pack

**(K)** EMI Sticker (*2)

**(L)** Plastic Stand (*4)

**(M)** Plastic Spacer (* 2)

**(N)** Standard HDD Screws / 3*4 (* 5)

**(O)** CD-ROM Adapter Screws (* 3)

**(P)** CD-ROM Screws (* 5)

**(Q)** Case Screws (* 2)

**(R)** CPU FAN Screws (* 2)

**(S)** CPU Cooler Screws (* 4)
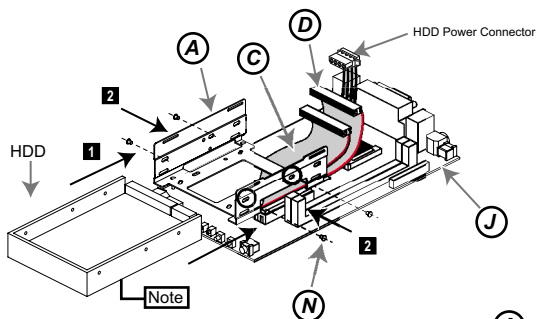
### 2.1.1 Installation

HDD Power Connector

Note

Note:
Power input DC 19V only

4

# Installation Procedure

## 2.1.2  Install Standard HDD



HDD Power Connector

HDD

Note

Note:  Flip the Standard HDD over

1  Install Standard HDD to bracket.
2  Tighten Standard HDD with screws to bracket.
3  Install UDMA ATA cable to HDD device.
4  Install to HDD power connector.

HDD Power Connector
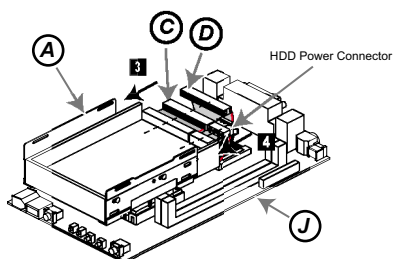
## 2.1.3  Install CD-ROM

1  Install CD-ROM to CD-ROM bracket.
2  Tighten CD-ROM with screws to CD-ROM bracket.
3  Insert plastic spacer to the CD-ROM adapter.
4  Install CD-ROM Cable to CD-ROM adapter.
5  Tighten CD-ROM adapter and CD-ROM
   with screws.
6  Put on the EMI sticker.
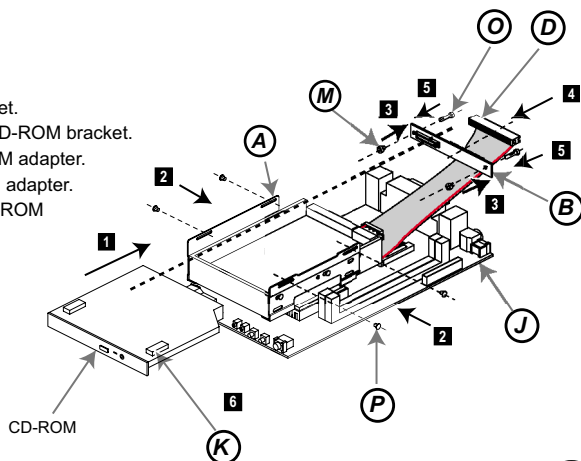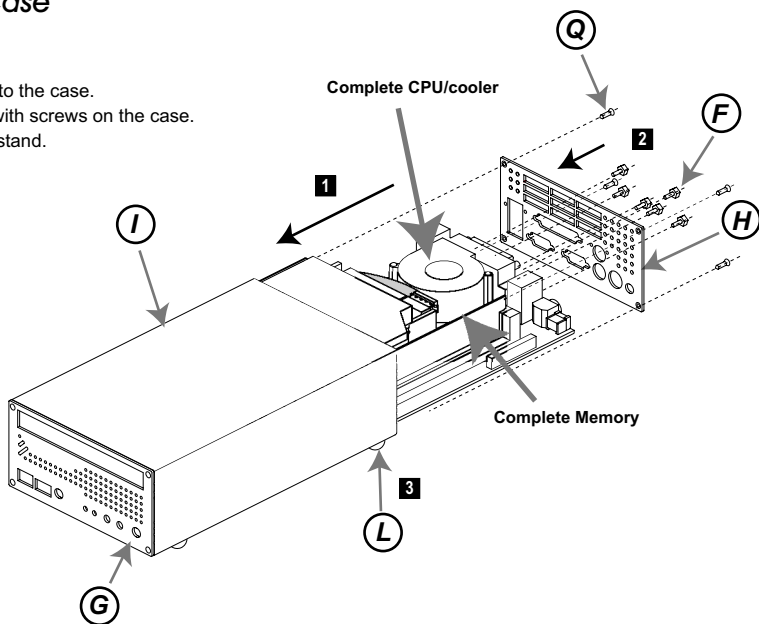


CD-ROM

*Before next step, you have to complete the install CPU/cooler and memory installation.*
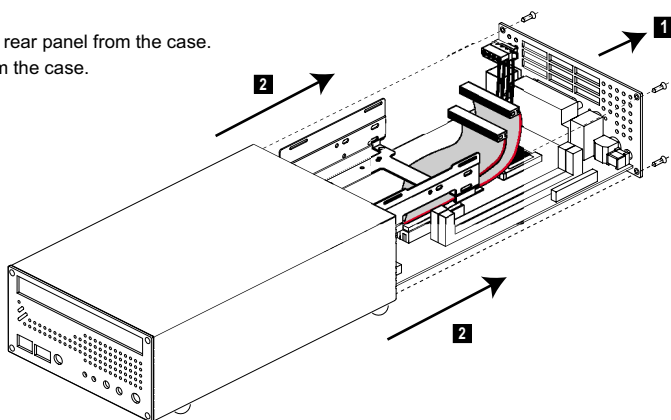
# Installation Procedure

## 2.1.4  Install Case

**Q**

**1** Install mainboard into the case.
**2** Tighten rear panel with screws on the case.
**3** Stick on the plastic stand.

Complete CPU/cooler

**F**

**2**

**1**

**I**

**H**

Complete Memory
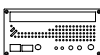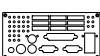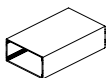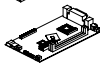
**3**

**L**

**G**

## 2.1.5  Unpacking Procedure

**1** Remove the screws on the rear panel from the case.
**2** Pull out the mainboard from the case.

**1**

**2**

**2**

# Installation Procedure

## 2.2  Corresponding models: PCMCIA, 3 LAN, DVR-1, DVR-4, CF reader

### Part List

(A) Drive Adapter

(B) CD-ROM Bracket

(C) CD-ROM Adapter

(D) Insulate Pad

(E) HDD 40-pin Cable

(F) CD-ROM 44-pin Cable

(G) Drive Adapter Screws (* 4)

(H) Printer/COM/VGA Screws (* 6)

(I) Front Panel

(J) Rear Panel

(K) Case

(L) Mainboard

Installation Accessory Pack

(M) EMI Sticker (*2)

(N) Plastic Stand (*4)

(O) Plastic Spacer (* 2)

(P) Slim HDD Screws / 3*6 (* 5)

(Q) Standard HDD Screws / 3*4 (* 5)

(R) CD-ROM Adapter Screws (* 3)

(S) CD-ROM Screws (* 5)

(T) Case Screws (* 2)

(U) CPU FAN Screws (* 2)

(V) CPU Cooler Screws (* 4)

## 2.2.1  Installation

**1** Install and tighten CD-ROM bracket, insulate pad and the drive adapter with screws.

G

1

HDD Power Connector

B

D

A
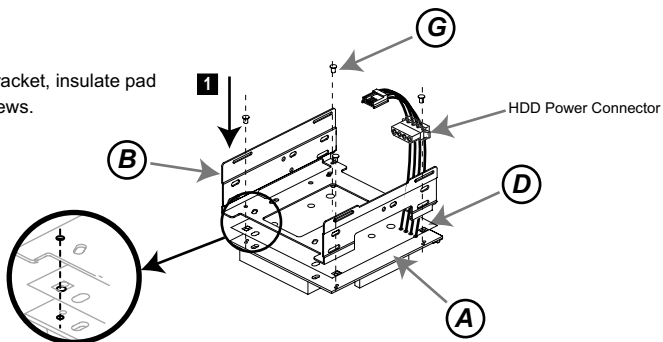
# Installation Procedure

## 2.2.2  Install Slim HDD



**1** Install HDD to drive adapter.
**2** Flip the drive adapter over.
**3** Tighten HDD with screws.
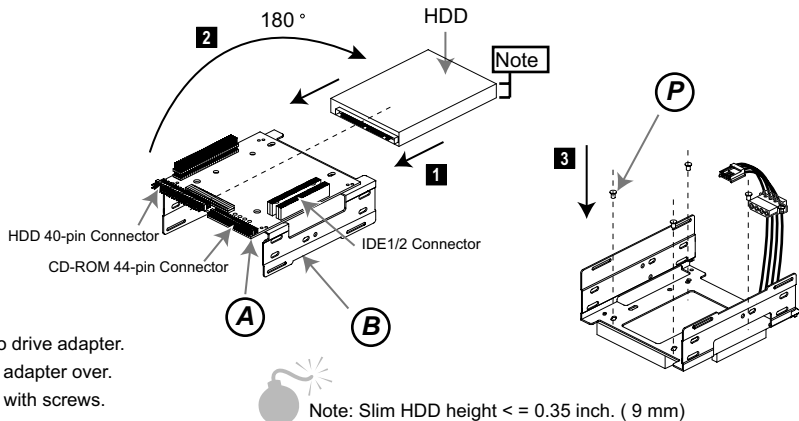
Note: Slim HDD height < = 0.35 inch. ( 9 mm)

## 2.2.3  Install Standard HDD



Note:  Flip the Standard HDD over

**1** Install CD-ROM 44-pin cable to CD-ROM 44-pin connector.
**2** Install HDD 40-pin cable to HDD 40-pin connector.
**3** Install Standard HDD to bracket.
**4** Tighten Standard HDD with screws to bracket.
**5** Install HDD 40-pin cable to HDD device.
**6** Install to HDD power connector.

# Installation Procedure

## 2.2.4 Install CD-ROM
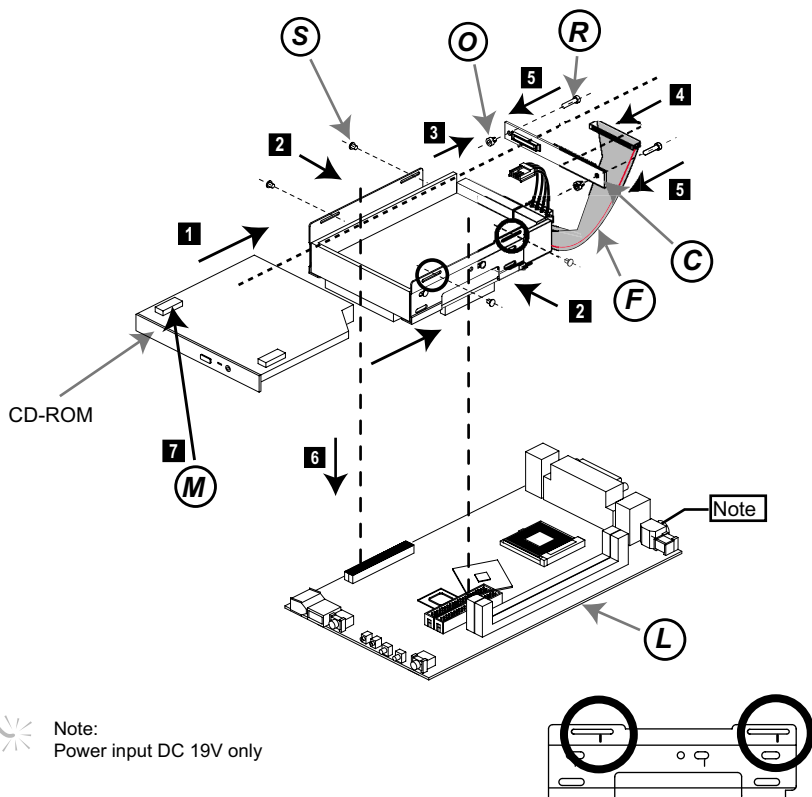


CD-ROM

Note:
Power input DC 19V only

**1** Install CD-ROM to CD-ROM bracket.
**2** Tighten CD-ROM with screws to CD-ROM bracket.
**3** Insert plastic spacer to the CD-ROM adapter.
**4** Install CD-ROM 44-pin Cable to CD-ROM adapter.
**5** Tighten CD-ROM adapter and CD-ROM with screws.

*Before next step, you have to complete the install CPU/cooler and memory installation.*

**6** Install the drive adapter to the mainboard.
**7** Put on the EMI sticker.
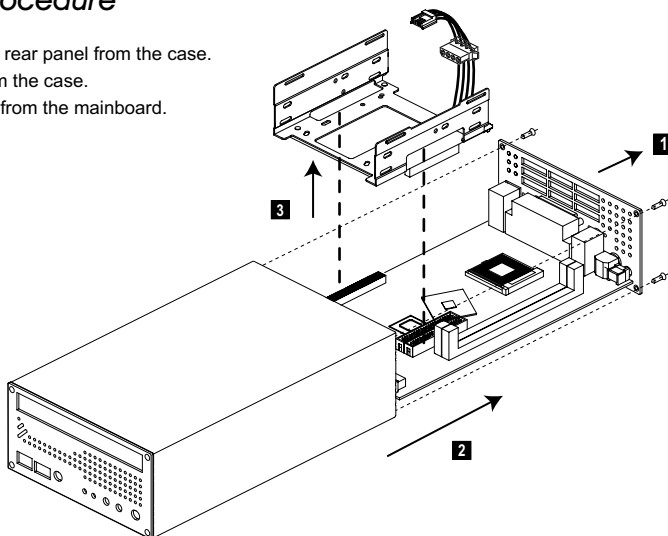
# Installation Procedure

## 2.2.5  Install Case

**1** Install mainboard into the case.
**2** Tighten rear panel with screws on the case.
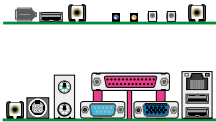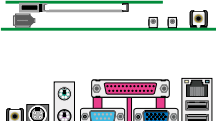**3** Stick on the plastic stand.
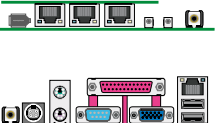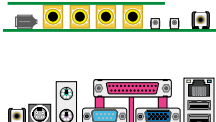
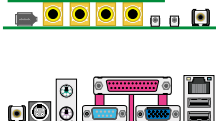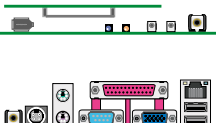Complete CPU/cooler

Complete Memory
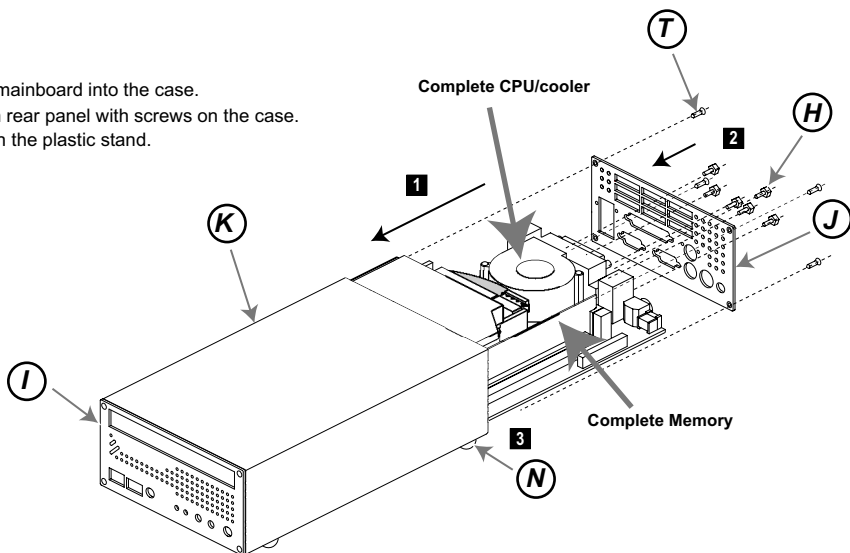
## 2.2.6  Unpacking Procedure

**1** Remove the screws on the rear panel from the case.
**2** Pull out the mainboard from the case.
**3** Uninstall the drive adapter from the mainboard.

# Upgrade Models

| | |
|---|---|
| **Standard** | **SPDIF** |
| | addition SPDIF |
| **PCMCIA** | **1 LAN** |
| PCMCIA | Realtek 8100C LAN |
| **3 LAN** | **1Gb LAN** |
| Realtek 8139C 3*100Mb LAN | Realtek 8110S LAN |
| **DVR-1** | **Mini PCI** |
| 1*BT878A | expanable to WIFI |
| **DVR-4** | **3 RS-232** |
| 4*BT878A | 3 addition RS-232 ports |
| **CF reader** | **TV-Out** |
| CF reader | NTSC/PAL output |

Specifications are subject to change without notice, reference only.